

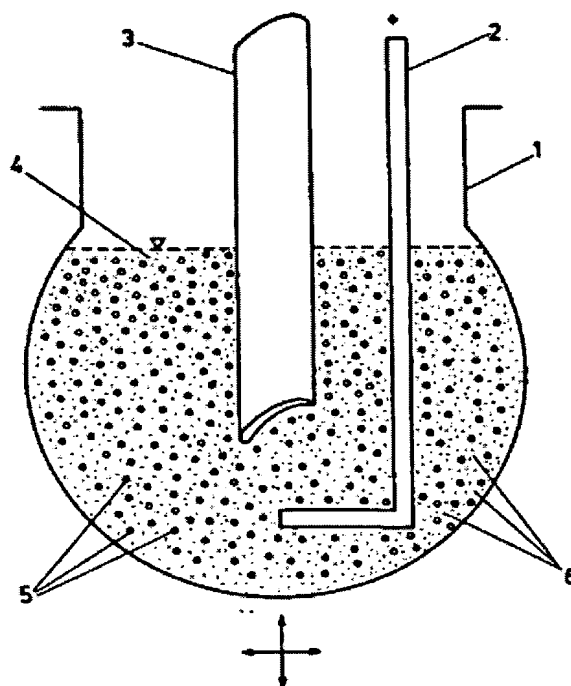
Electrolytic coating thick layers with embedded particles - using vibrated glass pearls inside electrolyte to ensure uniform distribution of embedded particles inside densely packed matrix

Patent number: DE4024911
Publication date: 1991-04-11
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Classification:
 - international: C25D3/12; C25D15/00
 - european: C25D5/22; C25D15/02
Application number: DE19904024911 19900806
Priority number(s): CH19890003519 19890928

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Abstract of DE4024911

Method of producing thick coating of a matrix with inbedded particles consists of mechanically mixing at least 30 vol.% inert particles in the form of glass pearls of 2-4 mm diameter. These particles are suspended in the electrolytic bath under constant vibration. At least 5 vol.% of a further solid particle (6) of 5-50 microns diameter of a metal or alloy is added to the electrolyte and the concentrations of the electrolyte and the solid metal particles as well as the current density are established so that the particle (6) are inbedded in the matrix produced from the electrolytic in a uniform distribution and concentration. Finally after washing and drying the workpiece is diffusion annealed. USE/ADVANTAGE - Producing thick coating on turbine blades to be used at high work temps.. Uniformly thick, dense, surface layers are produced which possesses high temp. corrosion resistance due to the constant vibration of the glass pearls which prevent concentration drops and insufficient metal ions at the surface of the workpiece.



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